BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Procedures to Govern the Use of Satellite Earth Stations on Board Vessels in the 5925-6425 MHz/3700-4200 MHz Bands and 14.0-14.5 GHz/11.7-12.2 GHz Bands	)	IB Docket No. 02-10

To: The Commission

REPLY OF MARITIME TELECOMMUNICATIONS NETWORK, INC.

Maritime Telecommunications Network, Inc. ("MTN"), by its attorneys and pursuant to Section 1.429(g) of the Commission's rules, 47 C.F.R. § 1.429(g), hereby replies to the Opposition to Petition for Reconsideration of the Fixed Wireless Communications Coalition ("FWCC") filed in the above-captioned proceeding.[1] The FWCC opposes MTN's request for clarification or reconsideration of three elements of one subpart of new Section 25.221 of the Commission's Rules – which contains the provisions applicable to earth stations on board vessels ("ESVs") in the C-band fixed-satellite service frequency bands.[2] As MTN explains below, nothing in the FWCC Opposition would justify having the Commission decline to revise Section 25.221(e) in the manner requested by MTN. The Commission should therefore reject the

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[1] Opposition to Petition for Reconsideration, IB Docket No. 02-10 (filed Apr. 21, 2005) ("FWCC Opposition").

[2] *See* Petition for Clarification and/or Partial Reconsideration of Maritime Telecommunications Networks, Inc., IB Docket No. 02-10 (filed March 2, 2005) (addressing Section 25.221(e)) ("MTN Petition").

FWCC's unfounded concerns, and reconsider Section 25.221(e) of the Commission's Rules in the manner proposed in the MTN Petition.[3]

The FWCC first opposes MTN's request for clarification that Section 25.221(e) requires only the public notice of a "notification" that a coordination agreement has been reached and not the filing and placement on public notice of the entire coordination agreement. The FWCC favors public notice of the coordination agreement on the suspect grounds that complete disclosure of coordination details is necessary to permit potentially affected FS operators to confirm that they were taken into account.[4] Yet, the FWCC fails to justify the more extensive publication of data. As MTN explained, the "notification" requirement it urges – and which is already indicated elsewhere in Section 25.221(e) – permits just such an accounting in the form of the Frequency Coordination and Interference Analysis Report. The level of detail in these publicly available reports – including the names of the FS operators notified and the potential interference cases and how they were resolved – contains all the information that fixed service operators could possibly require, as the attached sample report illustrates.[5] The Commission should, in the manner proposed in the MTN Petition, clarify the scope of the new rule's "notification" requirement.

The FWCC next objects to MTN's request to limit any cessation of ESV operations following an objection received during the 30-day public notice period that is contemplated in

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[3] The Commission should also reject FWCC's support of PanAmSat Corporation's proposals concerning automatic shutdown and off-axis antenna gain and power density limits. FWCC Opposition at 1. These proposals, which address matters without any bearing on fixed service ("FS") operations, request revisions to rules that already adequately protect the interests of adjacent fixed-satellite service operators.

[4] FWCC Opposition at 2.

[5] The sample Frequency Coordination and Interference Analysis Report follows interference identification and resolution procedures formulated and agreed to by the National Spectrum Managers Association, the independent organization that develops recommendations for streamlining and standardizing procedures used by the frequency coordination community.

Section 25.221(e) to the specific frequencies used by FS links that can be shown to have been inadvertently overlooked in the coordination agreement and for which a showing of harmful interference from continued ESV operations is made. Intelsat, Ltd. supports MTN's position, succinctly stating that "any shutdown requirement should be narrowly tailored to address the specific interference concern raised."[6] The FWCC, however, would have the Commission believe that the complete shutdown of ESV operations within a coordinated area in the case of a missed FS operator is the "only remedy" available to that FS operator.[7] To the contrary, the FWCC's "remedy" is patently overbroad and inconsistent with the co-primary status of ESV users in the 5925-6425 MHz band. For the record, MTN acknowledges the need to cease ESV operations in the highly unusual instance where FS operators are missed during a coordination and whose operations are demonstrably at risk from such continued operations in the affected frequencies. The new ESV rules should be revised to reflect MTN's appropriately tailored approach.

Finally, the FWCC opposes MTN's revisions to Section 25.221(e) concerning coordination obligations on ESV operations that are within 200 kilometers from a fixed service offshore installation. In support, the FWCC asserts that Recommendation ITU-R SF.1585 requires measuring a coordination distance of 300 kilometers from offshore FS facilities and not from the coastline.[8] The FWCC is incorrect on several counts. As an initial matter, the ITU recommendation upon which the FWCC relies is just that – a recommendation. As such, it cannot "require" anything. In any event, and at the instigation of the United States, WRC-03

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6 Opposition and Comments of Intelsat, Ltd., IB Docket No. 02-10 (filed Apr. 21, 2005) at 24 ("Intelsat Opposition").

7 FWCC Opposition at 3.

8 *Id.* at 4.

established that the minimum distances for purposes of ESV operations are to be measured from the low-water mark, as defined in the United Nations Convention on the Law of the Sea, which prohibits any extension of territorial authority beyond 12 nautical miles from the low-water mark. This determination, which is both clear and controlling, supercedes anything to the contrary that may be contained in an ITU-R recommendation. The relevant line, thus, does *not* necessarily get extended out around offshore FS facilities, as the FWCC contends. Offshore FS facilities that are well beyond the baseline cannot be independently protected from ESV emissions consistent with Resolution 902. MTN's proposed revisions to 25.221(e) reflecting the controlling law should be adopted.[9]

CONCLUSION

For the foregoing reasons, MTN urges the Commission to reject the opposition of the FWCC and promptly adopt the clarifications and revisions to Section 25.221(e) that MTN urges in the Attachment to its Petition.

Respectfully submitted,

MARITIME TELECOMMUNICATIONS NETWORK, INC.

By: _____

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[9] *See* Intelsat Opposition at 23 (supporting MTN's proposed revisions and clarifications of the offshore FS facility coordination requirement).

Sample
Frequency Coordination and Interference Analysis Report

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for

[ES Owner/operator]

Prepared By:
[Frequency Coordination Firm
Address1
Address2
Date]

TABLE OF CONTENTS

1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Operation will be limited to the bandwidth shown in Section 4 of this report.

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

AT&T Wireless Services of Fl Inc - Fl
Cingular Wireless, LLC - South Fl Rgn
Florida Cellular Service, LLC
Palm Beach County Fac Dev & Op

No Other Carriers Reported Potential Interference Cases.

3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by [Frequency Coordination Firm] using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with a letter dated [PCNdate].

Company

Alltel Wireless Holdings, LLC.
AT&T Wireless Services of Fl Inc - Fl
Cellco Partnership dba Verizon Wireless
Central Florida Cellular Telephone Co
Cingular Wireless, LLC - South Fl Rgn
Florida Cellular Service, LLC
Florida Power And Light Company
Lee County Florida
M/A Com Private Radio Systems, Inc.
Palm Beach County Fac Dev & Op
South Florida Water Management District
Sprint Florida, Inc.
Verizon Personal Communications,L.P.(Fl)
Wireless One Holding Company Lp

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

SATELLITE EARTH STATION
FREQUENCY COORDINATION DATA
04/11/2003

Company	[ES Owner/operator]	
Earth Station Name, State		PEMBROKE PARK, FL
Latitude (DMS) (NAD83)		25 59 14.8 N
Longitude (DMS) (NAD83)		80 10 33.1 W
Ground Elevation AMSL (Ft/m)		12.01 / 3.66
Antenna Centerline AGL (Ft/m)		29.00 / 8.84
Receive Antenna Type:	FCC32	PRODELIN 1251-415
4.0 GHz Gain (dBi) / Diameter (m)		38.0 / 2.4
3 dB / 15 dB Half Beamwidth		1.1 / 2.2
Transmit Antenna Type:	FCC32	PRODELIN 1251-415
6.0 GHz Gain (dBi) / Diameter (m)		42.0 / 2.4
3 dB / 15 dB Half Beamwidth		0.7 / 1.40
Operating Mode		TRANSMIT AND RECEIVE
Modulation		DIGITAL
Emission / Receive Band (MHz)		128KG7D / 3700.00 - 4200.00
Emission / Transmit Band (MHz)		128KG7D / 5925.00 - 5930.10
		128KG7D / 6078.90 - 6137.65
		128KG7D / 6167.85 - 6241.44
		128KG7D / 6271.64 - 6360.04
		128KG7D / 6390.24 - 6425.00
Max. Available RF Power	(dBW)/4 kHz)	-5.90
	(dBW)/MHz)	18.10
Max. EIRP	(dBW)/4 kHz)	36.10
	(dBW)/MHz)	60.10
Max permissible Interference Power		
4.0 GHz, 20% (dBW/1 MHz)		-158.0
4.0 GHz, 0.0100% (dBW/1 MHz)		-148.0
6.0 GHz, 20% (dBW/4 kHz)		-154.0
6.0 GHz, 0.0025% (dBW/4 kHz)		-131.0
Range of Satellite Arc (Geostationary)		
Degrees Longitude		55.5 W / 55.5 W
Azimuth Range (Min/Max)		133.6 / 133.6
Corresponding Elevation Angles		49.1 / 49.1
Radio Climate		B
Rain Zone		1
Max Great Circle Coordination Distance (Mi/Km)		
4.0 GHz		272.0 / 437.8
6.0 GHz		113.6 / 182.9
Precipitation Scatter Contour Radius (Mi/Km)		
4.0 GHz		62.1 / 100.0
6.0 GHz		62.1 / 100.0

Table of Earth Station Coordination Values
04/11/2003

Earth Station Name PEMBROKE PARK, FL
Owner [ES OWNER/OPERATOR]
Latitude (DMS) (NAD83) 25 59 14.8 N
Longitude (DMS) (NAD83) 80 10 33.1 W
Ground Elevation (Ft/m) 12.01 / 3.66 AMSL
Antenna Centerline (Ft/m) 29.00 / 8.84 AGL
Objectives: Receive -158.0 (dBW /1 MHz)
Transmit -154.0 (dBW /4 kHz) TX Power -5.9 (dBW/4 kHz)

Azimuth (Deg)	Horizon Elevation Angle (Deg)	Antenna Disc. Angle (Deg)	4.0 GHz Antenna Gain (dBi)	4.0 GHz Coordination Distance (Km)	6.0 GHz Antenna Gain (dBi)	6.0 GHz Coordination Distance (Km)
0	0.00	116.88	-10.00	437.8	-10.00	182.9
5	0.00	114.14	-10.00	437.8	-10.00	182.9
10	0.00	111.28	-10.00	437.8	-10.00	182.9
15	0.00	108.30	-10.00	437.8	-10.00	182.9
20	0.00	105.23	-10.00	437.8	-10.00	182.9
25	0.00	102.09	-10.00	437.8	-10.00	182.9
30	0.00	98.89	-10.00	437.8	-10.00	182.9
35	0.00	95.65	-10.00	437.8	-10.00	182.9
40	0.00	92.39	-10.00	437.8	-10.00	182.9
45	0.00	89.11	-10.00	437.8	-10.00	182.9
50	0.00	85.84	-10.00	437.8	-10.00	182.9
55	0.00	82.59	-10.00	437.8	-10.00	182.9
60	0.00	79.37	-10.00	437.8	-10.00	182.9
65	0.00	76.20	-10.00	437.8	-10.00	182.9
70	0.00	73.10	-10.00	437.8	-10.00	182.9
75	0.00	70.07	-10.00	437.8	-10.00	182.9
80	0.00	67.15	-10.00	437.8	-10.00	182.9
85	0.00	64.36	-10.00	437.8	-10.00	182.9
90	0.00	61.71	-10.00	437.8	-10.00	182.9
95	0.00	59.23	-10.00	437.8	-10.00	182.9
100	0.00	56.96	-10.00	437.8	-10.00	182.9
105	0.00	54.91	-10.00	437.8	-10.00	182.9
110	0.00	53.13	-10.00	437.8	-10.00	182.9
115	0.00	51.64	-10.00	437.8	-10.00	182.9
120	0.00	50.47	-10.00	437.8	-10.00	182.9
125	0.00	49.64	-10.00	437.8	-10.00	182.9
130	0.00	49.18	-10.00	437.8	-10.00	182.9
135	0.00	49.10	-10.00	437.8	-10.00	182.9
140	0.00	49.39	-10.00	437.8	-10.00	182.9
145	0.00	50.05	-10.00	437.8	-10.00	182.9
150	0.00	51.06	-10.00	437.8	-10.00	182.9
155	0.00	52.41	-10.00	437.8	-10.00	182.9
160	0.00	54.06	-10.00	437.8	-10.00	182.9
165	0.00	55.99	-10.00	437.8	-10.00	182.9
170	0.00	58.16	-10.00	437.8	-10.00	182.9
175	0.00	60.55	-10.00	437.8	-10.00	182.9
180	0.00	63.12	-10.00	437.8	-10.00	182.9

Table of Earth Station Coordination Values
04/11/2003

Earth Station Name PEMBROKE PARK FL
Owner [ES OWNER/OPERATOR]
Latitude (DMS) (NAD83) 25 59 14.8 N
Longitude (DMS) (NAD83) 80 10 33.1 W
Ground Elevation (Ft/m) 12.01 / 3.66 AMSL
Antenna Centerline (Ft/m) 29.00 / 8.84 AGL
Objectives: Receive -158.0 (dBW /1 MHz)
Transmit -154.0 (dBW /4 kHz) TX Power -5.9 (dBW/4 kHz)

Azimuth (Deg)	Horizon Elevation Angle (Deg)	Antenna Disc. Angle (Deg)	4.0 GHz Antenna Gain (dBi)	4.0 GHz Coordination Distance (Km)	6.0 GHz Antenna Gain (dBi)	6.0 GHz Coordination Distance (Km)
185	0.00	65.86	-10.00	437.8	-10.00	182.9
190	0.00	68.72	-10.00	437.8	-10.00	182.9
195	0.00	71.70	-10.00	437.8	-10.00	182.9
200	0.00	74.77	-10.00	437.8	-10.00	182.9
205	0.00	77.91	-10.00	437.8	-10.00	182.9
210	0.00	81.11	-10.00	437.8	-10.00	182.9
215	0.00	84.35	-10.00	437.8	-10.00	182.9
220	0.00	87.61	-10.00	437.8	-10.00	182.9
225	0.00	90.89	-10.00	437.8	-10.00	182.9
230	0.00	94.16	-10.00	437.8	-10.00	182.9
235	0.00	97.41	-10.00	437.8	-10.00	182.9
240	0.00	100.63	-10.00	437.8	-10.00	182.9
245	0.00	103.80	-10.00	437.8	-10.00	182.9
250	0.00	106.90	-10.00	437.8	-10.00	182.9
255	0.00	109.93	-10.00	437.8	-10.00	182.9
260	0.00	112.85	-10.00	437.8	-10.00	182.9
265	0.00	115.64	-10.00	437.8	-10.00	182.9
270	0.00	118.29	-10.00	437.8	-10.00	182.9
275	0.00	120.77	-10.00	437.8	-10.00	182.9
280	0.00	123.04	-10.00	437.8	-10.00	182.9
285	0.00	125.09	-10.00	437.8	-10.00	182.9
290	0.00	126.87	-10.00	437.8	-10.00	182.9
295	0.00	128.36	-10.00	437.8	-10.00	182.9
300	0.00	129.53	-10.00	437.8	-10.00	182.9
305	0.00	130.36	-10.00	437.8	-10.00	182.9
310	0.00	130.82	-10.00	437.8	-10.00	182.9
315	0.00	130.90	-10.00	437.8	-10.00	182.9
320	0.00	130.61	-10.00	437.8	-10.00	182.9
325	0.00	129.95	-10.00	437.8	-10.00	182.9
330	0.00	128.94	-10.00	437.8	-10.00	182.9
335	0.00	127.59	-10.00	437.8	-10.00	182.9
340	0.00	125.94	-10.00	437.8	-10.00	182.9
345	0.00	124.01	-10.00	437.8	-10.00	182.9
350	0.00	121.84	-10.00	437.8	-10.00	182.9
355	0.00	119.45	-10.00	437.8	-10.00	182.9

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION. I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS. I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

FREQUENCY COORDINATOR
[Frequency Coordination Firm
Address1
Address2]

DATED: [Date issued]

CERTIFICATE OF SERVICE

I, Rebecca J. Cunningham, hereby certify that on this 4th of May, 2005, I sent via first class U.S. mail, postage prepaid, a copy of the foregoing Reply of Maritime Telecommunications Network, Inc. to the following:

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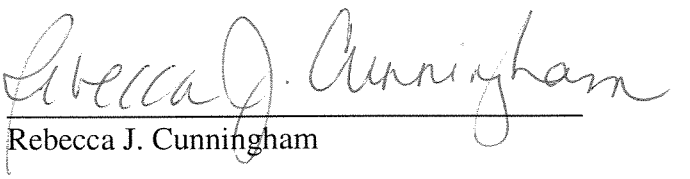

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